This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1 – 38. (Canceled)

39. (Previously Presented) A method of making a light-emitting device comprising a multi-layer stack of materials including a layer of p-doped material, a light-generating region, and a first layer, the method comprising:

bonding the first layer with a substrate;

subsequent to bonding the first layer with the substrate, bonding a layer of a reflective material with the layer of p-doped material, the multi-layer stack of materials being between the substrate and the layer of reflective material; and

removing the substrate,

wherein:

the first layer includes a surface having a dielectric function that varies spatially according to a pattern;

the reflective material is capable of reflecting at least about 50% of light generated by the light-generating region that impinges on the layer of reflective material; and

the substrate is removed after bonding the layer of the reflective material with the layer of p-doped material.

40. (Previously Presented) The method of claim 39, further comprising forming a bonding layer between the first layer and the substrate.

41. (Previously Presented) The method of claim 39, further comprising lapping and polishing steps after removing the substrate.

42. (Previously Presented) The method of claim 39, wherein removing the substrate includes heating a bonding layer disposed between the first layer and the substrate.

43. (Previously Presented) The method of claim 42, wherein heating the bonding layer decomposes at least a portion of the bonding layer.

44. (Previously Presented) The method of claim 42, wherein heating the bonding layer includes exposing the bonding layer to radiation emitted by a laser.

45. (Previously Presented) The method of claim 44, wherein removing the substrate includes exposing the substrate using a laser liftoff process.

46. (Previously Presented) The method of claim 39, wherein removing the substrate results in the surface of the first layer becoming substantially flat.

47. (Previously Presented) The method of claim 39, further comprising, before forming the pattern in the surface of the first layer, planarizing the surface of the first layer after the first substrate is removed.

48. (Previously Presented) The method of claim 47, wherein planarizing the surface of the first layer includes chemical-mechanical polishing the surface of the first layer.

49. (Previously Presented) The method of claim 47, wherein planarizing the surface of the first layer reduces a roughness of the surface of the first layer to greater than about $\lambda/5$, where λ is a wavelength of light that can be emitted by the first layer.

50. (Previously Presented) The method of claim 39, further comprising forming the pattern in the surface of the first layer.

51. (Previously Presented) The method of claim 50, wherein forming the pattern includes using nanolithography.

52. (Previously Presented) The method of claim 50, wherein the pattern has features that are greater than about $\lambda/5$, where λ is a wavelength of light that can be emitted by the first layer.

53. (Previously Presented) The method of claim 39, further comprising disposing a substrate on the layer of reflective material.

54. (Previously Presented) The method of claim 39, further comprising disposing a current-spreading layer between the first layer and the light-generating region.

55. (Previously Presented) The method of claim 39, wherein the light-emitting device is selected from the group consisting of light-emitting diodes, lasers, optical amplifiers, and combinations thereof.

56. (Previously Presented) The method of claim 39, wherein the light-emitting device comprises a light emitting diode.

57. (Previously Presented) The method of claim 39, wherein the light-emitting device is selected from the group consisting of OLEDs, flat surface-emitting LEDs, HBLEDs, and combinations thereof.

58. (Previously Presented) A method of making a light-emitting device comprising a multi-layer stack of materials including a layer of p-doped material, a light-generating region, and a first layer, the first layer including a surface having a dielectric function that varies spatially according to a pattern, the method comprising:

bonding the first layer with a substrate;

subsequent to bonding the first layer with the substrate, bonding a layer of a reflective material with the layer of p-doped material, the multi-layer stack of materials being between the substrate and the layer of reflective material;

removing the substrate;

planarizing a surface of the first layer after the substrate is removed; and

before forming the pattern in the surface of the first layer, planarizing the surface of the first layer,

wherein the reflective material is capable of reflecting at least about 50% of light generated by the light-generating region that impinges on the layer of reflective material.

59. (Previously Presented) The method of claim 58, further comprising forming a bonding layer between the first layer and the substrate.

60. (Previously Presented) The method of claim 58, wherein planarizing the surface of the first layer includes lapping and polishing steps.

61. (Previously Presented) The method of claim 58, wherein the substrate is removed after bonding the layer of the reflective material with the first layer.

62. (Previously Presented) The method of claim 58, wherein removing the substrate includes heating a bonding layer disposed between the first layer and the substrate.

63. (Previously Presented) The method of claim 62, wherein heating the bonding layer decomposes at least a portion of the bonding layer.

64. (Previously Presented) The method of claim 62, wherein heating the bonding layer includes exposing the bonding layer to radiation emitted by a laser.

65. (Previously Presented) The method of claim 64, wherein removing the substrate includes exposing the substrate using a laser liftoff process.

66. (Previously Presented) The method of claim 58, wherein removing the substrate results in the surface of the first layer becoming substantially flat.

67. (Previously Presented) The method of claim 58, wherein planarizing the surface of the first layer includes chemical-mechanical polishing the surface of the first layer.

68. (Previously Presented) The method of claim 58, wherein planarizing the surface of the first layer reduces a roughness of the surface of the first layer to greater than about $\lambda/5$, where λ is a wavelength of light that can be emitted by the first layer.

69. (Previously Presented) The method of claim 58, further comprising forming the pattern in the surface of the first layer.

70. (Previously Presented) The method of claim 69, wherein forming the pattern includes using nanolithography.

71. (Previously Presented) The method of claim 69, wherein the pattern has features that are greater than about $\lambda/5$, where λ is a wavelength of light that can be emitted by the first layer.

72. (Previously Presented) The method of claim 58, further comprising disposing a substrate on the layer of reflective material.

73. (Previously Presented) The method of claim 58, further comprising disposing a current-spreading layer between the first layer and the light-generating region.

74. (Previously Presented) The method of claim 58, wherein the light-emitting device is selected from the group consisting of light-emitting diodes, lasers, optical amplifiers, and combinations thereof.

75. (Previously Presented) The method of claim 58, wherein the light-emitting device comprises a light emitting diode.

76. (Previously Presented) The method of claim 58, wherein the light-emitting device is selected from the group consisting of OLEDs, flat surface-emitting LEDs, HBLEDs, and combinations thereof.